

CLAIMS

1. A data input system with which a user can input letters of an alphabet, comprising: selecting means (80; 86; 92; 98,102; 108,112) for enabling the user to select one of four options and, for each selected option, to select one of eight directions; detecting means (82,84; 88; 94,96; 100,104,106; 110,114) for detecting the option and direction selected by the user; and decoding means (84; 90; 96; 106; 116) responsive to the detected option and direction and operable to interpret each of a number of combinations of such an option and such a direction, equal to the number of letters in the alphabet, as a respective letter of the alphabet.
2. A data input system as claimed in claim 1, wherein the eight directions are generally equi-angularly spaced directions.
3. A data input system as claimed in claim 1 or 2, wherein the selecting means comprises four direction-selecting means (80; 86; 92) each for enabling the user to select one of eight directions.
4. A data input system as claimed in claim 3, wherein the four direction-selecting means (80) are separate.
5. A data input system as claimed in claim 1 or 2, wherein the selecting means comprises: option-selecting means (112) for enabling the user to select one of four options; and direction-selecting means (108) for enabling the user to select one of eight directions.
6. A data input system as claimed in claim 1 or 2, wherein the selecting means comprises: option-selecting means (102) for enabling the user to select one of two options; and two direction-selecting means (98) each for enabling the user to select one of eight directions.
7. A data input system as claimed in any of claims 1 to 3, 5 and 6, wherein at least a portion of the selecting means (86; 92; 98; 108) that enables the user to select at least one of the eight directions when one of the options is selected is the same as, or integral with, at least a portion of the selecting means that enables the user to select at least one of the eight directions when at least one other of the options is selected.
8. A data input system as claimed in claim 7 when dependent on claim 3, wherein: the selecting means (92) comprises a numeric keypad having an array of three columns and at least three rows of numeric keys (72), and four further keys (76) each disposed between a respective four of the numeric

keys.

9. A data input system as claimed in any of claims 1 to 7, wherein: the selecting means includes a surface (54) over which the user can move one of their fingers or other pointer; and the detecting means is operable to detect the direction of movement.

10. A data input system as claimed in any preceding claim, wherein at least a portion of the detecting means (88; 94; 100; 110) that detects at least one of the eight directions selected by the user when one of the options is selected is the same as, or integral with, at least a portion of the detecting means that detects at least one of the eight directions selected by the user when at least one other of the options is selected.

11. A data input system as claimed in any preceding claim, wherein the options are arranged in a two-by-two array.

12. A data input system as claimed in claim 11, wherein the options for inputting the vowels of the alphabet are arranged in the same column or the same row of the array, and the directions for inputting the vowels of the alphabet have a common orthogonal component.

13. A data input system as claimed in any preceding claim, wherein the selecting means, or each direction-selecting means, comprises a, or a respective, input element (16) that has a normally-unactuated state and that is manually actuatable in the eight directions to eight actuated states.

14. A data input system as claimed in claim 13, wherein each element is arranged to be urged by the user in the eight directions and further includes means (20) for detecting the general direction in which the respective manually-operable element is urged.

15. A data input system as claimed in claim 13, wherein each element comprises a respective surface portion (60) over which the user can move one of their fingers or other pointer (56) in the eight directions and means (26,28,58) for detecting the general direction in which the finger or pointer is moved over the respective surface portion.

16. A data input system as claimed in claim 13, wherein each element comprises a respective primary manually-operable sub-element (76) and four secondary manually-operable sub-elements (72) arranged around that primary sub-element such that the primary sub-element and any one, or adjacent two, of the secondary sub-elements can be operated in a combination by the user and further includes

means for detecting which of the eight combinations of the sub-elements is actuated.

17. A data input system with which a user can input letters of an alphabet, comprising: a keypad having an array of three columns and at least three rows of numeric keys (72), and four further keys (76) each disposed between a respective four of the numeric keys such that the user can operate each of the further keys in combination with one or two of the respective four adjacent surrounding numeric keys; and decoding means (42) operable to interpret operation of the further keys each in combination with one or two of the respective four surrounding numeric keys as representing respective letters of the alphabet.

18. A data input system as claimed in claim 8 or 17, wherein the numeric keys are arranged to provide a different feel to the user than the further keys.

19. A data input system as claimed in any of claims 8, 17 or 18, wherein the decoding means is operable to interpret operation of the numeric keys as representing respective digits of the denary number system.

20. A data input system with which a user can input letters of an alphabet, comprising: a surface (54) over which the user can move one of their fingers or other pointer; detecting means (26,28,58) for detecting over which of four portions of the surface such movement is made and in which of eight directions such movement is made; and decoding means (28) responsive to the detected portion and direction and operable to interpret each of a number of combinations of the portions and directions, equal to the number of letters in the alphabet, as a respective letter of the alphabet.

21. An electronic apparatus such as a mobile telephone, PDA or computer having a data input system as claimed in any preceding claim for inputting data to the apparatus.